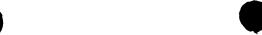
## We claim:

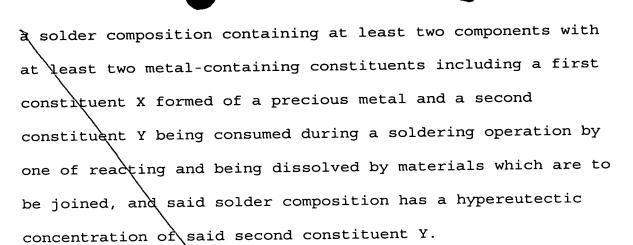
1. A method for producing a chip-substrate connection, which comprises:

performing one of alloying and brazing a chip to a substrate using a solder containing at least two components with at least two metal-containing constituents including a first constituent X containing a precious metal and a second constituent Y being consumed in a soldering operation by one of reacting and being dissolved by materials being joined, and the solder having a hypereutectic concentration of the second constituent Y.

- 2. The method according to claim 1, which comprises providing the second constituent Y of the solder with tin having the hypereutectic concentration.
- 3. The method according to claim 1, which comprises using a gold-tin compound (AuSn) as the solder with a hypereutectic Sn concentration.
- 4. The method according to claim 3, which comprise providing the gold-tin compound a tin concentration being greater than 20% by weight.



- 5. The method according to claim 1, which comprises depositing the solder on a rear side of the chip.
- 6. The method according to claim 5, which comprises providing the solder with a composition by weight of the first constituent X to the second constituent Y of 70 to 30.
- 7. The method according to claim 5, which comprises applying the solder with a thickness of from about 1  $\mu m$  to about 2  $\mu m$  to the rear side of the chip.
- 8. The method according to claim 1, which comprises using gold as the precious metal.
- 9. The method according to claim 1, which comprises depositing the solder on a rear side of the chip by sputtering.
- 10. The method according to claim 5, which comprises applying the solder by sputtering with a thickness of about 1.5  $\mu m$  to the rear side of the chip.
- 11. A solder for use in producing a chip-substrate connection, comprising:



- 12. The solder according to claim 11, wherein said second constituent Y contains tin with a hypereutectic concentration.
- 13. The solder according to claim 11, wherein said precious metal is gold.
- 14. The solder according to claim 11, wherein said solder composition has a composition by weight of said first constituent X to said second constituent Y of 70 to 30.

15. A semiconductor component, comprising:

a solder containing at least two components with at least two metal-containing constituents including a first constituent X being formed of a precious metal and a second constituent Y being consumed during a soldering operation by one of reacting and being dissolved in materials which are to be joined, and

said solder having a hypereutectic concentration of said second constituent Y;

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a substrate; and

a semiconductor thip secured to said substrate by one of alloying and brazing using said solder.

16. The semiconductor component according to claim 15, wherein said solder contains a gold-tin compound (AuSn) with a hypereutectic Sn concentration.

-13-